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APPENDIX A
VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 23-40 have been cancelled.

New Claims 41-57 have been added as follows:

41. (New) A method of increasing the proliferative capacity of a mammalian cell, comprising introducing into the cell a recombinant polynucleotide comprising a nucleic acid sequence that encodes a telomerase reverse transcriptase protein, variant, or fragment having telomerase catalytic activity when complexed with a telomerase RNA,

wherein the polynucleotide hybridizes under stringent conditions to a polynucleotide having a sequence complementary to SEQ ID NO:1, and

wherein the expression of the hTERT protein from the recombinant polynucleotide in the cell increases the proliferative capacity of the cell.

42. (New) The method of claim 41, wherein the cell is a human cell.

43. (New) The method of claim 41, further comprising selecting cells that express an increased level of telomerase catalytic activity.

44. (New) The method claim 43, wherein the cell is a human cell.

45. (New) The method of claim 41, wherein the polynucleotide encodes a full-length, naturally occurring telomerase reverse transcriptase.

46. (New) The method of claim 45, wherein the cell is a human cell.

47. (New) The method of claim 46, further comprising selecting cells that express an increased level of telomerase catalytic activity.

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48. (New) The method claim 47, wherein the cell is a human cell.
49. (New) The method of claim 41, wherein the polynucleotide encodes a telomerase reverse transcriptase having the amino acid sequence of SEQ ID NO:2.
50. (New) The method of claim 49, wherein the cell is a human cell.
51. (New) The method of claim 49, further comprising selecting cells that express an increased level of telomerase catalytic activity.
52. (New) The method claim 51, wherein the cell is a human cell.
53. (New) The method of claim 41, wherein the recombinant polynucleotide is an expression vector.
54. (New) The method of claim 53, wherein the expression vector is an SV40 virus expression vector, an EBV expression vector, an *Autographa californica* nuclear polyhedrosis virus expression vector, a herpesvirus expression vector, or a vaccinia virus expression vector.
55. (New) The method of claim 53, wherein the expression vector is a retrovirus expression vector.
- ~~56. (New) The method of claim 53, wherein the expression vector is an adenovirus expression vector.~~
57. (New) The method of claim 53, further comprising selecting cells that express an increased level of telomerase catalytic activity.
58. (New) The method claim 53, wherein the cell is a human cell.